

## Readers --

This issue has been somewhat delayed because our staff has been travelling to the various summer trade shows, but we've returned with some terrific new products that we'll describe in this issue. The shows left us all with feelings of exhilaration and exhaustion, but each show's special flavor made it worth the effort.

4th West Coast Computer Faire (San Francisco) -- a super show!! Our OTHELLO tournament was a success, and the COMPUCOLOR II defeated around 50% of the participants, although the winner was not a COMPUCOLOR II owner (big disappointment!). It was a real pleasure to meet so many COMPUCOLOR II owners and ColorCue readers. After much correspondence by paper and ink, it was fun to finally assign faces to the personalities met by mail. Our thanks to all of you who came to say 'hi' and share your ideas and comments.

Consumer Electronics Show (Chicago) -- this show is mostly for dealers rather than consumers, but we were glad to see a few of you sneak in! We introduced a couple of new things at this show that you'll all be glad to see.

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National Computer Conference (New York) -- as the biggest show of the year for all computer manufacturers, this was the highlight of the season. Last minute changes in plans prevented any of the ColorCue staffers from attending, but those of you who did visit were met by our full complement of technicians, software experts, and wily salespeople. We came back with sales leads by the sackful, and something tells us that any COMPUCOLOR II owners who feel a little lonely won't be lonely much longer!

At all three shows, interest in the product was higher than ever, and we've noticed some changes in the consumers as compared to last year. People are more aware than ever of what's available and what's possible. No longer restricted to hobbyists, the range of people interested in personal computing gets wider and wider. We at Compucolor Corporation welcome this increased public awareness, since we think the COMPUCOLOR II has the best price/performance ratio available in the market. With more people more able to thoroughly investigate the equipment before they buy, we expect COMPUCOLOR II sales to skyrocket! We've been making great inroads in the educational market, and have sold numerous computers to school systems across the country.

We've decided to do a combined MAY/JUNE issue for several reasons which we think are good ones. Now some of you may think that we are trying to gyp you out of an issue of ColorCue, but of course that's not so. If you count the number of pages in this issue, you will see that it is double our usual number, and contains easily as much information as two regular issues. ColorCue is generated on a computer, and the file sizes average around 89 (HEX). This ColorCue has a file size of 10A, and those of you with 16 fingers can easily calculate that this is a BIG issue. Summer is vacation time for most of you, and it's no different with us. So we decided to just put all our ideas together and send out this super 'vacation' issue. There's plenty of info included herein, and you should all be kept busy for hours.

We are sorry to report that Susan G. Sheridan, who has been ColorCue's author for the 9 months that it has been in existence, is headed for the rainy skies of the Pacific Northwest, where she will be pursuing a freelance writing career. Even though she is one of ColorCue's most ardent fans (naturally enough!) it is not possible to generate a newsletter about a product when there's a 3000 mile separation from that product. Susan wishes to thank all of the readers who have contributed so much to the formation and continuation of ColorCue. Despite the change in venue, she hopes to maintain contact with the product, and she has craftily inserted her name and new address into the Data Base file that makes the ColorCue mailing labels!

Of course, our losing Susan will mean that we must depend even more on your support for ColorCue. We'll be introducing our new editor in the next issue, and you can then begin addressing your ColorCue correspondence to the new writer. In the meantime, simply use the company address and make the notation 'ATTN:ColorCue' somewhere on the envelope. Remember that we are still looking for articles, and are willing to trade ColorCue subscriptions or Sof-Disk Albums for the ones that we publish.

We receive numerous phone calls from our readers, and all their questions and ideas contribute to ColorCue's success. We don't want to put a damper on your enthusiasm, but it is very helpful if you submit these ideas to us in writing because;

1. We can answer the most frequently asked questions in ColorCue instead of individually. You still get the answers, but we save lots of time.
2. It's easier to convince the Management that there is a demand for a product or program, or that a problem exists if we can show it to them in writing.
3. Your ColorCue editor can spend more time writing, instead of talking on the phone.

If you have specific questions, we recommend that you see your dealer first. He has an excellent knowledge of the COMPUCOLOR II and can solve most problems very quickly. If you still can't resolve a problem, then please do feel free to call us. If it's a technical problem ask for Ron or Carl in Customer Service. If it's software, then Bruce or Ken will be happy to help.

## ADVANCED APPLICATION

### Changing the Directory Name

Ever (that's Southern for 'did you ever') want to change the name at the top of your Sof-Disk directory? Maybe you never even thought about its being possible. Of course, you know that you can do it by initializing the disk. But this does have the disadvantage of destroying the rest of the Directory, so of course you can no longer access any of the programs. Being able to insert a new name onto a disk can be quite useful. Wouldn't it be convenient to label each disk by the last date on which you used it? Or how about the time you started writing a space war game, but it eventually turned out to be a game that simulated the Hundred Years War and your disk was still labelled 'MARTIAN'? The following program will solve these pressing problems.

The program works by loading the first block of the disk into memory. This is the block which contains the Directory name. This program replaces the current name (4th through 13th bytes) with the new name and puts the changed block back on the disk. Notice that the program moves the end of BASIC to provide space for the first block of the directory to be read into. At the end of the program we turn this pointer back to its previous value.

There are a couple of interesting things that you can do with this program that are normally not possible. When you initialize a disk, you can not have spaces or special characters in the disk name. This program allows you to do anything except exceed the 10 characters maximum for the disk name. This means that you can put the directory name in any color (even in blink if you wish) and include spaces.

```
100 REM ** CHANGE DIRECTORY NAME **
110 REM
120 REM ** MOVE END OF BASIC BACK 130 BYTES
130 AD= PEEK (32941)* 256+ PEEK (32940):AD= AD- 130
140 POKE 32941, INT (AD/ 256):POKE 32940, AD- INT (AD/ 256)* 256
150 CLEAR 200
160 REM
170 REM ** FIND NEW END OF BASIC
180 AD= PEEK (32941)* 256+ PEEK (32940):A= AD+ 1
190 REM
200 REM ** CONVERT ADDRESS TO HEX
210 V= INT (A/ 4096):A= A- V* 4096:GOSUB 250
220 V= INT (A/ 256):A= A- V* 256:GOSUB 250
230 V= INT (A/ 16):A= A- V* 16:GOSUB 250
240 V= INT (A):A= A- V:GOSUB 250:GOTO 330
250 IF V< 10THEN ADR$= ADR$+ RIGHT$ (STR$ (V), 1)
260 IF V= 10THEN ADR$= ADR$+ "A"
270 IF V= 11THEN ADR$= ADR$+ "B"
280 IF V= 12THEN ADR$= ADR$+ "C"
290 IF V= 13THEN ADR$= ADR$+ "D"
300 IF V= 14THEN ADR$= ADR$+ "E"
310 IF V= 15THEN ADR$= ADR$+ "F"
320 RETURN
330 REM
340 REM ** READ FIRST BLOCK OF DISK INTO MEMORY
350 PLOT 27, 4:PRINT "READ 0 "+ ADR$+ " 0080":PLOT 27, 27
360 REM
370 REM ** FIND THE CURRENT DIRECTORY NAME
380 FOR I= AD+ 4TO AD+ 13:X= PEEK (I):N$= N$+ CHR$ (X):NEXT I
390 PRINT
400 PRINT "THE CURRENT DISK NAME IS: ";N$:PRINT
410 REM
420 REM ** REPLACE OLD NAME WITH NEW NAME
430 INPUT "ENTER THE DESIRED NEW NAME: ";S$
440 IF S$= ""OR S$= "0"THEN 530
450 IF LEN (S$)> 16THEN PRINT "NAME TOO LONG":GOTO 430
460 S$= S$+ "          ";J= 0
470 FOR I= AD+ 4TO AD+ 13:J= J+ 1
480 X= ASC (MID$ (S$, J, 1)):POKE I, X:NEXT I
490 REM
500 REM ** WRITE THE BLOCK BACK TO THE DISK
510 PLOT 27, 4:PRINT "WRITE 0 "+ ADR$+ " 0080":PLOT 27, 27
520 REM
530 REM ** PUT END OF BASIC BACK WHERE IT WAS
540 RD= AD+ 130
550 POKE 32941, INT (RD/ 256):POKE 32940, RD- INT (RD/ 256)* 256
560 CLEAR 100
```

## KEEPING IT SIMPLE

### Factoring Numbers by Computer

This month's selection was sent to us by Jamie Lynn Barlow of Rochester, NY. Her program demonstrates an important element of programming -- the development of a sound algorithm. Factoring numbers is not extremely difficult, but it can be approached in several ways. The approach that Jamie uses leads to a simple, concise program. It is vital that you thoroughly think through the idea and method behind a program before you start to actually write any code. After all, programming is simply a matter of translating an idea into a series of messages understood by the computer. If the original concept is sound, the translation will be smooth, straightforward and effective. Says Jamie Lynn:

I developed this program to help myself in seventh grade mathematics. We were doing prime factorization and I needed some help. My Dad suggested that we design a program to factor any number you chose. This is what the "FACT" program does. Then we decided that it wouldn't be too hard to design a program that told you whether the number you chose was a prime. If it was not a prime, it would list the factors. This program is called "FACT2".

Statement 10 of the FACT program asks you for a number. Line 20 controls the searching or looking for factors. Statement 30 determines which numbers are factors, by dividing the number you chose by all possible factors. When it finds a number that goes in evenly, it will list it as a factor. Statement 40 steps to the next possible factor, and when all possible factors have been investigated, it goes to statement 50 which goes back to the beginning and asks for another number to factor.

FACT2 uses the same method as FACT does except that FACT2 counts the number of factors the chosen number has. If the counter only counts two factors after all possible factors have been divided, it will print "I'M PRIME" because only prime numbers have just two factors.

I have no background in computers or computing to tell about. Computers have always interested me, but until a few months ago, I never had a chance to actually use one. I found that computing on a machine can vary from very simple programs to extremely difficult, hard to put together ones. Both of these programs are in BASIC and can be used on the COMPUCOLOR II and other BASIC machines.

#### FACT listing:

```
10 INPUT "NUM";X
20 FOR F=1 TO X
30 IF X/F = INT(X/F) THEN PRINT F
40 NEXT F
50 GOTO 10
```

#### EXAMPLES:

NUMBER? 512
1 512
2 256
4 128
8 64
16 32

## FACT2 listing:

```
10 INPUT "NUMBER? ";X
15 CTR=0
20 FOR F=1 TO SQR(X)
30 IF X/F = INT(X/F) THEN PRINT F,X/F: CTR=CTR+2
40 NEXT F
50 IF CTR=2 THEN PRINT "I'M PRIME"
55 PRINT
60 GOTO 10
```

NUMBER? 487

1 487

I'M PRIME

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## COMMENTS AND CORRECTIONS

True to the promise made in last month's ColorCue, the Personal Data Base has been shipped. All back orders have been filled, and new orders are currently being taken. The new form for the documentation has been very well received, with several nice letters and phone calls about it. If you haven't seen it, why not order one of our new Sof-Disks, such as Statistics or Personal Finance I? They both have the special new documentation. We were in a hurry to ship the Personal Data Base (since some of you have been waiting since. . .) and we left out a few things in the documentation. To correct this, we've enclosed with each one a brief sheet with a few comments on it. At one point on this sheet we refer you to the 'penultimate paragraph' where you are to insert a phrase. Our Product Line Manager says that this will send everyone scurrying to his dictionary to find out that 'penultimate' means 'next to the last', and in the interest of simplicity he suggested that it be changed. But the powers that be in Technical Publications insist that 'next to the last' is inelegant and wordy, while 'penultimate' is concise and correct. In any case, the meaning is hereby made clear, and no one can say that COMPUCOLOR II ownership isn't educational!

## APPEND

In the APR ColorCue we had a very nice program which appended together two BASIC programs and formed them into a single program. The only problem with it is that it doesn't work. Gasp! Most of you know that our parent company, ISC, manufactures several different models of terminals and computers. These machines are similar to the COMPUCOLOR II, but not identical, and although the routine we presented works just dandy on most of our products, it doesn't work properly on the COMPUCOLOR II because of a slight difference in the system software. The programmer who gave us the original non-functional APPEND routine was chained to his COMPUCOLOR II until he came up with a routine that does append two programs. This is a little messier than the first routine, but at least it works! You will need to use the LADR and SADR directory entries to make this routine work. Follow this sequence:

1. ESC D

2. FCS>DIR

FILENAME	LADR	SADR
PROG1.BAS	U	V
PROG2.BAS	X	Y

3. compute       $W = V - 2$   
                   $Z = V - 2 + Y - X$   
(all values in hex)

4. FCS>LOAD PROG1.BAS U

5. FCS>LOAD PROG1.BAS W

6. FCS>SAVE TEMP.BAS U-Z      (Do not compute the value U-Z. Enter the two numbers separated by a minus sign.  
For example: SAVE TEMP.BAS 829A-85CF)

7. ESC E (back to BASIC)

8. LOAD"TEMP"

9. ESC D (back to FCS)

10. FCS>DEL TEMP.BAS;01

11. ESC E (back to BASIC)

12. SAVE"PROG3"

This will require that you polish up your algebra just a little bit in order to perform the calculations. You will also have to keep the hex values straight. Remember that, for example,  $9A - 2 = 98$ . A HEX calculator is a handy thing to have, so why not try writing a short program to calculate the conversions for you, as many users have done.

## DRAWING BOARD

There are so many new things this month that it's hard to know where to begin. First, we now have a clever device that brings a long-awaited feature to the COMPUCOLOR II -- **sound!** It is not a voice simulator, but rather the sort of sound that lets you add special effects to programs or write your own music by computer. The option is called 'Soundware', and it plugs into the RS-232 port via an included connector. The system consists of a speaker that sits on top of your COMPUCOLOR II, and a disk that contains the special Soundware programs. Soundware offers many possibilities. There are a lot of sounds already created for you, such as sirens, saucers, lasers, and everybody's favorite -- chipmunks! Soundware also has a composer program that lets you specify pitch and duration to

create your own tunes and tones. The speaker's volume is dial-adjustable, and everything you need to put sound on your COMPUCOLOR II is included in the Soundware package. The price is \$50.00. Ask your dealer about this new feature.

This month we are releasing something that has been requested by almost everyone at one time or another -- lower case characters. Those of you who use the computer to type letters on upper and lower case printers will find this very useful. We have a special way of adding lower case that makes it even more attractive. You know that instead of lower case, all COMPUCOLOR II's currently have a special graphics character set that is used in many applications programs, such as CHESS and BLACKJACK. The lower case character option doesn't eliminate this capability from your machine because the addition is made by a hardware switch that is installed at the lower right of the machine. You can flip back and forth from lower case to graphics characters with just the touch of a toggle. You will have to have this option installed by your dealer or at the factory.

We are in the process of selecting a modem and a printer to be used on the COMPUCOLOR II and marketed through Compucolor Corporation. Choosing a printer presents lots of price/performance dilemmas, since it seems that everyone has a different idea of just how sophisticated a printer should be. But we think we'll make a good choice, and it will be ready for sale in September. Both the printer and the modem will be modified so that they plug directly into the COMPUCOLOR II and require no special modifications or handlers.

Software-wise there are some new goodies on the horizon. We've been promising the Statistics packages for some time, and Volume I will be shipped within a couple weeks, with volumes II and III following close behind at intervals of about one week. They include regression, time series analysis, and curve fitting. These programs are definitely not for the average consumer, but our market surveys tell us that many of you are mathematicians, statisticians, students, and others that would have use of such programs. And we're trying hard to produce the kind of software that you want to see. So if any of you have suggestions or ideas, write to us and let us know. Personal Finance Volume I will be ready for shipment at the beginning of next month. Many of you have this disk, which contains programs to calculate annuities, on backorder, so be looking for it soon.

Those who saw it at the various shows agree that FREDI, our BASIC text editor program, is a superlative effort. FREDI's capabilities will make BASIC programming much easier, because they allow you to correct errors, search for various commands or variables, insert and renumber lines, and much more. It is very easy to use, with simple one-letter commands that perform whatever function you choose.

L -- Lists a BASIC program starting at a selected line number.  
L AND SEARCH -- allows you to search for the occurrence of any variable, string, command or color; then lists all pertinent lines. Makes short work of debugging.  
E -- Edit any line number  
M -- Moves a line to a new location, where it can be edited or left unchanged.  
D -- Deletes any specified range of line numbers  
I -- Inserts a line number  
A -- Automatically numbers inserted lines. You specify the starting line number and the desired increments.  
B -- Transfers control back to BASIC. The edited program can now be saved or run. If other changes are required, an ESC sequence transfers back to the editor.

Another super feature of FREDI is that it comes on a Sof-Disk Album with several other BASIC utilities that all programmers will find useful at one time or another. There is a program called REMPAC that saves space in a program by removing all the REM statements, and there is another program, COMPAC, that removes all the blank spaces. The disk also includes MERGE, which merges two BASIC programs together, automatically interlacing the line numbers to create an entirely new program. And, as many of you have requested, we are including on this disk RENUM, our program renumbering routine. RENUM allows you to specify the starting line number and the value of the increment. It also allows you to selectively renumber any portion of a program by specifying starting and ending line numbers in the original program. This BASIC Utilities Sof-Disk is priced at \$29.95, and with what is contained on the disk, we feel that this is a real bargain. It will be ready for shipment in late July, and we are currently taking orders, so contact your dealer.

The most sophisticated users and those with some very special applications frequently request a COMPUCOLOR II System Listing, and in our effort to be responsive, we are now making this Listing available to users. The price is \$100. The listing provides information about the CRT mode and the File Control System, and some of you have expressed a need for this information. Since the version of BASIC used on the COMPUCOLOR II is owned by MICROSOFT, this is proprietary information and is not included in the System Listing. The disk handler routine is also omitted from the listing because of our reserved proprietorship.

## SOFTWARE FILES

Recently, submissions to this department have been up, but we seem to keep seeing 90% of the programs from 3% of the users. We know that the rest of you are not just sitting idle, so how about sending in some of your programs to let us have a look. A good program will net you a couple Sof-Disks or other users' programs as a trade; and a great program could get you several hundred dollars. Or, if you prefer, we can arrange a royalty plan whereby you are paid a percentage of the profit from each disk

sold! This is a way to turn a potentially unlimited profit from your programming efforts. At any rate, it's worth a try. Let's see what you've got. Send all submissions to the address below:

Compucolor Corporation  
P.O. Box 569  
Norcross, GA 30071

ATTN: User Software Files

#### A HAZARD TO THE COMPUCOLOR'S HEALTH

You may be just a little bored by all the bad news about cigarette smoking, but brace yourself, because we've got some more for you. The particles released in tobacco smoke are so small that they can easily get on your Sof-Disks and inside your disk drive. These particles can fit between the disk and the surface of the drive head, where they can actually interfere with the drive's ability to properly read a disk. Those of you who are heavy smokers might do well to make an effort to cut down a bit while using your COMPUCOLOR II. And of course you should keep your Sof-Disks out of smoke-filled rooms if possible.

Now, for smokers and non-smokers alike -- please treat your Sof-Disks kindly! On the back of each Sof-Disk cover is a list of do's and do not's about Sof-Disk care. Be sure to read this over and handle your disks accordingly. Most of you are careful, but occasionally we do get requests for an exchange on a disk that suspiciously bears the imprint of Rover's dentition. We've also seen the kind of disks that have obviously been stored next to the fireplace and look something like Dali's watches. All of our Sof-Disks are very carefully manufactured and tested here at Compucolor Corporation, but if, in spite of your T.L.C., a disk gives you problems within 30 days of purchase, you may return it to us or to your dealer for replacement. Note that this warranty cannot cover disks that are damaged by user negligence.

#### EDIT KEYS

Several of you have written in to ask about the cluster of editing keys that appears in the upper right of the keyboard on both the Extended and Deluxe models. Although these keys are labeled with editing commands, they as yet have no functions in any available computer mode. Like the 16 special function keys, however, they can be individually programmed and given special assignments within a program. Rather than omitting these keys from the keyboard, we chose to leave them where experienced programmers can take advantage of them. We may also be making use of them in some of our forthcoming Sof-Disk Albums.

## DIRECTORY ASSISTANCE

### What To Do After You Hit DIR

To old hands at things like systems software and hexadecimal notation and the like, reading and understanding the directory of a disk is probably second nature. But for most people, at least a few of the column entries don't seem to have much meaning. It's also true that you might not ever need to know what all of the elements of the directory indicate, but at the same time, a better understanding of how the COMPUCOLOR II uses and stores information can only help you in your programming efforts. Below is a sample directory taken from a SAMPLER Sof-Disk.

DIRECTORY C00: SAMPLER 06									
TR	NAME	TYPE	VR	SBLK	SIZE	LBC	LADR	SADR	
03	BIORHY.	BAS:	01	0006	0017	30	829A	8DDE	
03	DEMO	.	BAS:	01	001D	0020	7A	829A	9894
03	PCARDS.	BAS:	01	0049	0010	40	829A	905A	
03	BANDIT.	BAS:	01	0065	0028	3A	829A	9654	
03	LOAN	.	BAS:	01	0080	0018	78	829A	8E92
03	MENTST.	BAS:	01	00A5	0002	7A	829A	8294	
03	CONDEN.	BAS:	01	00A7	001A	2D	829A	8F47	
03	COPY	.	PRG:	01	00C1	0004	49	829A	829F
03	MENU	.	BAS:	01	00C5	0009	0E	829A	86A8
03	METRIC.	BAS:	01	00CE	0014	6F	829A	8C89	
01	<FREE SPACE>			00E2	0194				

Each column has a special significance that tells you something about the amount, kind, and location of information on the disk. The first column is the attribute field. This is a one byte field and can have one of two values; either

3 -- Unprotected File or  
1 -- Free Space Entry

All of the space on the disk, except for the directory itself, is either a file or free space.

The next field is perhaps the most familiar part of the directory. It consists of the filename, separated by a period from the file type, which is separated by a semi-colon from the version number. The filename may be any combination of alphanumeric characters up to six characters long, but you cannot use special characters such as % or & in filenames. You name a file with the SAVE command, in which you must specify a file name. For example: SAVE"COLORS" would save whatever program was currently in memory, and list it on the directory under the name COLORS.

The file type may be any three alphanumeric characters, but certain specified types have special meanings to the File Control System. BAS

denotes a BASIC program, and RND indicates a BASIC random file. The PRG and LDA types are also recognized by FCS. The LDA type is in the format of a series of data followed by addresses in memory where the data are to go. This means that along with the data, extra information is being stored and this requires extra space on the disk and this takes longer to load. The Assembler produces this type file because it facilitates faster assembly. The default type for the LOAD command is LDA. If you do not specify another type, then system will default to the LDA and not, for example, to a BAS file with the same 6-letter name. When the computer loads the LDA version, all the data is placed where specified by the addresses in the file. It is then saved in the memory image format. This is the simplest and most compact format. Since the starting and ending address of the program is known from the assembly, and since the program is in memory, it can be saved in the PRG format. The SAVE command will default to the PRG type.

The PRG, LDA, BAS, RND and SCR types all have previously designated meanings, but you may create file types and names that have special meaning to your programs. BASIC may use a file type other than RND. The RND file is merely the default type. However, if you open a file to use as an RND file, you must make sure that the file is in the RND format. The name does not matter, the information does. Those of you who have the Personal Data Base can look at that directory and see how the file types INF and INX, among others, are stored on the disk. This is an example of a special file type being created for use by a specified program.

The field which immediately follows the file name and type is the version number. When you create a file with the same name and type as one already on the disk, the File Control System will give the new file the next version number. This is a hexadecimal number which takes up one byte and ranges from 1 to FF (1 to 155 decimal). When you run, copy, or otherwise access a program without specifying a particular version, the system will default to the file with the largest version number, that is, the most recent version.

The next field is the starting block. A Sof-Disk is divided into 400 blocks of 128 bytes each, much in the same way that an eight-track cartridge is divided into 8 tracks of specified lengths. The directory starts at block zero, and information about each addition to the disk is recorded in the space reserved for the directory. The amount of space set aside for this purpose is variable. When you initialize a disk with the following sample command: INI CD0:COLORCUE the directory space defaults to 3 blocks. If you have a special purpose in mind for the disk, you may want to specify the number of blocks reserved for the directory. For example, if you want to save only two very long programs, you would need very little space for your two-entry directory, and could use this initialization command: INI CD0:COLORCUE 1. If you wanted to save a large number of files, you might want to increase the space allotted to the directory so that there would be room for dozens of entries. You might initialize the disk with a directory block sized 9. You must always allot at least 1 block, and you cannot allow more than 20 blocks for the directory.

Programs and files will be saved on the disk starting at the first block not reserved for the directory, and the column labelled SBLK (starting block) tells you where on the disk each new file is saved.

The field which lists the size of each entry is very useful. It indicates how many blocks are used by a particular file. This, when compared to the free space entry, lets you know whether or not another version of any file can be saved. It also lets you know exactly how much space was taken up by any improvements or changes that were added to recent versions of a file. As mentioned above, each block contains 128 bytes. Any given file may or may not be of a size that will fit exactly into 128 byte blocks, so the LBC field (Last Block Count) tells you (and FCS) how many bytes of the last block are used. This information can be useful in certain space-conscious applications, where using every byte optimally is important.

A BASIC program that is stored on disk (and in memory for that matter) is not recorded as the series of words that you see when you list the program. BASIC has fewer than 256 commands, so each one is encoded into one byte, and then stored in that fashion. For example, if 21 is defined as 'GOTO', then each GOTO will be stored in one byte, and when the program is listed, a GOTO will be printed everytime a 21 is encountered. This saves memory, disk space, and time.

The load address field tells where in memory to put the file if it is a memory image type, and the starting address field tells the computer where to begin execution if it is a PRG file. These last two bits (24?) of information are not always needed, and may be quite meaningless for some types of files.

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## USER CORRESPONDENCE

Myron Steffy, of Sun City, Arizona, writes to us with a short routine and a few nice comments:

Dear Susan,

I am the proud owner of a COMPUCOLOR II purchased about a month ago and have been going through the back issues of 'ColorCue'. It is a wonderful way to help out the 'new boys'.

I held off buying a computer until just recently. I had decided that I wanted two things that neither Heath or Radio Shack had; color and graphics. Was tempted by the 'Apple', but didn't want a bunch of separate pieces strung together with cables as is my ham radio gear. Then along came the COMPUCOLOR II and I was sold. By the way, the first program I wrote was for the amateur satellite "Oscar". The program prints out the beam azimuth and elevation every minute in real time for each transit.

Here is a little four-line routine to transfer a screen display from one disk to another without imprinting 'READY' or any other command on the screen for display.

```
10 PLOT 27,4:PRINT "LOAD TABLE.DIS": PLOT 27,27
20 FOR I=1 TO 10000:NEXT I
30 PLOT 27,4:PRINT"SAVE TABLE.DIS 6000 1000":
40 PLOT 27,27
```

To use, enter the above program in BASIC and insert the disk with the orginal display. Type 'RUN' and wait for the display to appear on the screen. When it is complete you have about 10 seconds afforded by the loop at line 20 to remove the first disk and insert the receiving disk. No print will appear on either disk or display. This is probably not very original, but it took me a few minutes to figure it out!

Sincerely Yours,

Myron Steffy

Dear Myron,

I don't know how original it is, but since no one else has sent one in like it, it's plenty original enough to publish in ColorCue! So glad you're enjoying your COMPUCOLOR II and ColorCue. You aren't alone in wanting a computer that's completely self-contained. Many buyers, school systems especially, are mentioning that as an important factor in their decision to buy. And of course those bright colors never hurt...

*Susan*

\*\*\*\*\*

From Springfield, Missouri, Tom Hudson writes in to tell of his experiences. He's also looking for some correspondence with other COMPUCOLOR II owners. Why not write a letter to him? Getting to know some other users, even by long distance, can help you find new uses and ideas for your computer.

Dear Susan,

First of all, let me say that the COMPUCOLOR II is the finest microcomuter sytem I have ever had the privilege of working on.

Since recieving my computer, I have found that the CCII has several disticnt advantages over its competition, the primary one being the fact that the CCII's disk operating system is stored in ROM. The Apple and TRS-80 both use 9K of the user's RAM for their DOS! Of course, that are many other advantages too numerous to list here.

I'm thinking of ordering a Maintenance Manual and would like to know what it covers. For example, I have some experience with color TV and the color guns of my CCII do not seem to want to line up in the left-hand portion of the screen. Does the Manual cover his sort of thing?

P.S. Could you by any chance put my name and address in ColorCue, to inform other users that I'd like to correspond with them?

Sincerely,

Tom Hudson  
2369 E. Seminole  
Springfield, MO 65804

Dear Tom,

Our Maintenance Manual has been very popular with those COMPUCOLOR II owners who have some electronics background. It does discuss convergence of the system, as well as other hardware repairs. It includes complete schematics and drawings of the COMPUCOLOR II's internal features, and for anyone with an innate curiosity about how things work it's a good investment.

Your name and address are printed as you requested. I may be a little biased, but I think that COMPUCOLOR II owners are a really special group of people. I bet you'll get some super letters from some nice people. I know I do!

*Susan*

#### LINE LENGTH

Some of you who have already bought printers have been calling in to tell us that it's too bad that the COMPUCOLOR II can't output any lines longer than 64 characters. You say that your printer uses 120 width paper, and you'd like to print that many characters across. It's true that the COMPUCOLOR II has only 64 characters on the screen, but you can output lines up to 255 characters long. In the Programming and Reference Manual, and in the Instruction Manual, we have listed in the Key memory locations the POKE value that allows you to do this. It is 33289. For example, if you want to output 120 characters, include this program statement:

POKE 33289,120

#### SUBSCRIPTION RENEWAL

We weren't kidding when we told you a couple of months ago that the \$6.00 price on a year's ColorCue subscription was an introductory offer. That offer expires in August, so you've got just a couple weeks to send in your checks. After this summer, the price goes back up to the standard \$1.00 per issue. We are very pleased at the number of renewals we've received so far, and such a high rate of response really motivates the staff. If you haven't renewed your subscription, fill out the next page today.

#### USER'S GROUP TO START

Our Canadian COMPUCOLOR II owners (and their numbers are growing everyday) will be pleased to know that our Toronto area dealer, House of Computers, is starting a Users Group! The first meeting will be held on August 8th -- that's the second Wednesday in the month. Mark Herzog, store owner, invites all COMPUCOLOR II users and anyone else who's interested in color graphics to attend this first meeting. It will be held at the store, and it's a chance for all of you to swap some programs and ideas. Please contact Mark for further details about time, directions to the store, etc.

HOUSE OF COMPUTERS  
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Toronto, Ontario  
CANADA M5N 1A2

(416) 482-4336

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